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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michael Pashley

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

PAYNE, SHARON E

ART UNIT

PAPER NUMBER

2875

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/539,966	PASHLEY, MICHAEL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sharon E. Payne	2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>0605</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. The claims are objected to because they include reference characters which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

### ***Claim Rejections - 35 USC § 112***

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 is indefinite for reciting the limitation "the maximum diameter of the multi-chip package 260 is equal to the input etendue of the output rod." The measurements of the diameter and the etendue require different units and cannot be equated. This claim could not be evaluated further.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 5, 13, 14 and 18 are rejected under 35 U.S.C. 102(a) as being anticipated by EP 1,211,457 A1 (hereinafter "TB Optical").

Regarding claim 1, TB Optical discloses a plurality of light emitting diode chips, the light emitting diode chips forming at least one multi-chip package (reference numbers 131 and 141); at least one reflector (reference number 150a), the reflector optically connected to the multi-chip package (Fig. 1); and an output rod (reference number 310), the output rod optically connected to the reflector (Fig. 8).

Concerning claim 2, TB Optical discloses the reflector (reference number 150a) directing light emanating from the light emitting diode chips (Fig. 8).

Regarding claim 3, TB Optical discloses the reflector (reference number 150a) directing light emanating from the light emitting diode chips (Fig. 8).

Concerning claim 5, TB Optical discloses the reflector (reference number 150a) directing light emanating from the light emitting diode chips (Fig. 8).

Regarding claim 13, TB Optical discloses forming at least one multi-chip package from a plurality of light emitting diode chips (Fig. 8, left); transmitting light from the multi-chip package to at least one reflector (Fig. 8, reference number 150a); and providing the light from the reflector to an output rod (reference number 310, Fig. 8).

Concerning claim 14, TB Optical discloses the maximum etendue of the multi-chip package is equal to the input etendue of the output rod (Fig. 8, see light rays on the left).

Regarding claim 18, TB Optical discloses means for forming at least one multi-chip package from a plurality of light emitting diode chips (reference numbers 131 and 141); means for transmitting light from the multi-chip package to at least one reflector (reference number 150a); and means for providing the light from the reflector to an output rod (reference number 310, Fig. 8).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over TB Optical in view of Bailey (U.S. Patent 3,608,999).

Regarding claim 4, TB Optical does not disclose a flexible output rod. Bailey discloses the output rod 130 being flexible (column 2, lines 20-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Bailey in the apparatus of TB Optical to determine if a lamp has failed or not (column 1, lines 40-45, of Bailey).

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over TB Optical in view of Jiao (U.S. Patent 5,390,265).

Regarding claim 7, TB Optical does not disclose the reflector aperture being equal to the input diameter of the output rod. Jiao discloses the reflector output aperture (Fig. 1, right and left) is equal to the input diameter of the output rod (reference number 30, Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Jiao in the apparatus of TB Optical to catch all of the light into the output rod. See Fig. 1 of Jiao.

Concerning claim 8, TB Optical does not disclose that the reflector is a compound parabolic reflector. Jiao discloses the reflector (reference number 32) is a compound parabolic reflector (Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Jiao in the apparatus of TB Optical to produce the desired lighting effects.

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over TB Optical in view of Naum (U.S. Patent 6,272,269).

Regarding claim 9, TB Optical does not disclose the reflector providing total internal reflection. Naum discloses the reflector (reference number 28) providing total internal reflection (Figs. 6 and 10, reference number 28).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Naum in the apparatus of TB Optical to put a bright light into a optical fiber while controlling the temperature of the apparatus (column 2, lines 35-40, of Naum).

9. Claims 10-12, 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over TB Optical in view of Cobb (U.S. Publication 2003/0133079 A1).

Regarding claim 10, TB Optical discloses a plurality of multi-chip packages (reference numbers 131 and 141), a reflector (reference number 150a), the multi-chip packages optically connected to the reflector (Fig. 7). TB Optical does not disclose a plurality of reflectors or a dichroic cube.

Cobb discloses a plurality of reflectors (reference numbers 24B, 24g and 24r), and a dichroic cube (reference number 26), the dichroic cube optically connected to the reflectors and the output rod (reference number 32). (Beam splitters reflect some of the light.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Cobb in the apparatus of TB Optical to produce a colored image (abstract of Cobb).

Concerning claim 11, TB Optical discloses the plurality of multi-chip packages emanating red, green and blue light (column 12, lines 25-35).

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Regarding claim 12, TB Optical does not disclose a dichroic cube. Cobb discloses the dichroic cube (reference number 26) coupling red, green, and blue light into the output rod (reference number 32) to generate white light (Fig. 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Cobb in the apparatus of TB Optical to produce a colored image (abstract of Cobb). (The colored image would have to include white light because the colors are being mixed.)

Concerning claim 15, TB Optical discloses providing colored light from at least two multi-chip packages (reference numbers 141 and 131). TB Optical does not disclose at least two reflectors or a dichroic cube.

Cobb discloses transmitting the colored light from the multi-chip packages to at least two reflectors (reference numbers 24g and 24r) providing the colored light from the reflectors to a dichroic cube (reference number 26); generating a white light from the colored light as a function of the dichroic cube (abstract); and providing the white light from the dichroic cube to the output rod (reference number 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Cobb in the apparatus of TB Optical to produce a colored image (abstract of Cobb). (The colored image would have to include white light because the colors are being mixed.)

Regarding claim 16, TB Optical discloses the colored light being directed by one reflector (reference number 150a).



Concerning claim 17, TB Optical discloses the white light being generated from red, green and blue light (column 12, lines 25-35).

Regarding claim 19, TB Optical discloses means for forming at least one multi-chip package from a plurality of light emitting diode chips (reference numbers 141 and 131). TB Optical does not disclose two reflectors or a dichroic cube.

Cobb discloses means for transmitting the colored light from the multi-chip packages to at least two reflectors (reference numbers 24r and 24g); means for providing the colored light from the reflectors to a dichroic cube (reference number 26); means for generating a white light from the colored light as a function of the dichroic cube (abstract, Fig. 6); and means for providing the white light from the dichroic cube to the output rod (reference number 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the configuration of Cobb in the apparatus of TB Optical to produce a colored image (abstract of Cobb). (The colored image would have to include white light because the colors are being mixed.)

### ***Conclusion***


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon E. Payne whose telephone number is (571) 272-2379. The examiner can normally be reached on regular business hours.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sep

  
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